Aerospace Coatings

Notes: Several districts have adopted aerospace coating rules that establish VOC content limitations for specific coatings. Determining which rule is the most stringent is difficult because: 1) some rules define specific limits for specific types of coatings that are not defined in other districts, 2) some rules define coating categories generically while others have many coating specialty subcategories, and 3) different rules exempt different VOC compounds. Therefore, it is important to provide the districts flexibility when selecting the best "combination" of requirements and not always the "most stringent" requirement. Each rule should be looked at as a system of emission limits and performance requirements designed to meet the requirements of a specific district's program.

						Rule/Measure/Date						
Regulated Component	Pollutant	Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating		rospace Assembly and	Rule 67.9 Aerospace Coating Operations 4/30/97		VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96		U.S. EPA Aerospace Manufacturing and Rewo Operations ^(b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98			
			Performance Standard									
VOC	VOC ROC	Reg 1 does not exempt PCE		Rule 102 exempts PCE		Rule 2 exempts PCE	X	Rule 2 ROC does not exempt PCE	X	CTG exempts PCE NESHAP does not exempt PCE, TCA, MeCl		
adhesives and coating application, general solvent limit	VOC		X	reduce organic material emissions from organic solvent or materials containing organic solvent by 85% Rule 442								
spray coating equipment, general	VOC HAP		X	must be operated in a controlled enclosure except: spraying catalyzed epoxy or polyurethane primers or coating that can not fit in an enclosure or completed vehicles Rule 481					X	primers & topcoats, with inorganic HAP emissions: all sources apply coatings in a booth or hangar in which air flow is directed downward onto or across the part or assembly being coated. (9-1-98)		
ablative coating	VOC			650 fire resistant, civilian						600 (9-1-99)		
ablative coating military	VOC		X	970 fire-resistant, military								

			Rule/Measure/Date											
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95		le 1124 crospace Assembly and	Ru Ae Op	rospace Coating erations 0/97	Ru Ae Co Op	CAPCD le 74.13 rospace Assembly and mponent Mfg. erations 0/96	Ма Ор СТ 9/1 <i>NE</i>	U.S. EPA Aerospace Manufacturing and Rework Operations (b) CTG implementation 0/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98				
			Performance Standard											
adhesive, commercial interior	VOC			805 250 (1/1/02) adhesive bonding primer					X	760 (9-1-99)				
adhesive, cyanoacrylate	VOC		X	805 250 (1/1/02) adhesive bonding primer						1020 (9-1-99)				
adhesive, elastomeric	VOC		X	805 1/1/98 250 (1/1/02) adhesive bonding primer		850								
adhesive, fuel tank	VOC		X	620	X	620				620 (9-1-99)				
adhesive, promotor	VOC ROC		X	805 250 (1/1/02) adhesive bonding primer				850						
adhesive, rocket motor bonding	VOC									890 (9-1-99)				
adhesive, rubber-based	VOC		X	805						850 (9-1-99)				

Table I (1 of 2)
Identification of Performance Standards
Source Category: Aerospace Coatings (a)

		Rule/Measure/Date										
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Ru Ae Co Ma	rospace Assembly and	Ru Ae Op	OCAPCD ale 67.9 erospace Coating perations 30/97	Ru Ae Co Op	Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96		S. EPA Aerospace anufacturing and Rework perations (b) FG implementation 1/98 and 9/1/99 ESHAP limits in italics plementation 9/15/98		
]	Performance Standard	l					
				250 (1/1/02) adhesive bonding primer								
adhesive, non-structural	VOC ROC		X	250			X	250		360 (9-1-99)		
adhesive, structural epoxy	VOC				X	50 ероху						
adhesive, structural autoclavable	VOC ROC	exempt Reg. 8 Rule 4 see adhesive bonding primer	X	50	X	50	X	50		60 (9-1-99)		
adhesive, structural non-autoclavable	VOC ROC			850	X	250		850 NO SOURCES 12/97		850 (9-1-99) cure <250°F		
adhesive, all other	VOC			adhesives exempt from all or part of Rule 1124 are subject to Rule 442		250 all other						

		Rule/Measure/Date BAAQMD SCAQMD SDCAPCD VCAPCD U.S. EPA Aerospace										
Regulated Component		BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Ru Ae Co Ma	AQMD le 1124 rospace Assembly and mponent unufacturing Operations /13/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98							
]	Performance Standard						
adhesive bonding primer	VOC ROC	850 exempt high-temp-cure >325°F see Reg 8 Rule 4, section 8-4-301 exempts operations using heat if <2.5 tpy VOC		805 250 (1/1/02) <350°F		850	X	780 NO SOURCES 12/97		850 <250°F (9-1-99) 1030 >250°F (9-1-99)		
adhesive bonding primer, elastomer or elastomeric	VOC		X	805 250 (1/1/02) adhesive bonding primer		850						
adhesive bonding primer, epoxy-phenolic (metal to honeycomb) >350°F	VOC											

		Rule/Measure/Date										
Regulated Component	Pollutant			Rule 67.9 Aerospace Assembly and operations anufacturing Operations 2/13/96 Rule 67.9 Aerospace Coating Operations Aerospace Assembly and Operations Component Mfg. Operations Operations 9/10/96 Rule 74.13 Aerospace Assembly and Operations Operations 9/1/98 anufacturing Operations 9/10/96 NESHA						S. EPA Aerospace unufacturing and Rework erations (b) (G) implementation (98 and 9/1/99 (SHAP limits in italics plementation 9/15/98		
		Performance Standard										
adhesive bonding primer, long term metal to structural core bonding	VOC			800 250 (1/1/00) >350°F		850 structural				1030 (9-1-99)		
adhesive bonding primer, short term metal to structural core bonding	VOC			250 >350°F		850 all other				1030 (9-1-99)		
adhesive bonding primer, decorative laminating	VOC											
adhesive bonding primer, military	VOC											
adhesive bonding primer, nitrile phenolic (metal to metal)	VOC											
adhesive bonding primer, all other	VOC											
antichafe	VOC		X	600	X	600	X	600		660 (9-1-99)		

			Rule/Measure/Date										
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Ru Ae Co Ma	le 1124 crospace Assembly and	Ru Ae Op	OCAPCD le 67.9 crospace Coating perations 30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96			S. EPA Aerospace anufacturing and Rework perations (b) CG implementation (98 and 9/1/99) CSHAP limits in italics polementation 9/15/98			
]	Performance Standard	l						
barrier a.k.a. fastener lubricative, barrier coating	VOC ROC						X	420					
bearing	VOC		X	420 fastener, <u>lubricative</u> , barrier coating		620							
caulking and smoothing compounds	VOC				X	850							
chemical agent-resistant (CARC)	VOC		X	420 topcoat						550 (9-1-99)			
commercial exterior aerodynamic structural primer	VOC			650 low solids corrosion resistant primer						650 (9-1-99)			
conformal	VOC ROC		_	750		750	_	750					
corrosion prevention compound	VOC		X	780 pretreatment coating						780 (9-1-99)			

Table I (1 of 2)
Identification of Performance Standards
Source Category: Aerospace Coatings (a)

						Rule/Measure/Date				
Regulated Component	Pollutant	8		Rule 1124 Aerospace Assembly and		SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97		CAPCD ale 74.13 brospace Assembly and broponent Mfg. berations 10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98	
			Performance Standard							
cryogenic flexible primer	VOC		X	350 general primer						645 (9-1-99)
cryoprotective coating	VOC		X	420 topcoat						600 (9-1-99)
electric or radiation effect coating	VOC ROC	800		800		800		675 NO SOURCES 12/97		800 (9-1-99)
elevated temperature skydrol resistant commercial primer	VOC		X	805 250 (1/1/02) adhesive bonding primer					X	740 (9-1-99)
extreme performance interior coating, barrier	VOC	x 420	X	420 topcoat						
fastener, <u>installation</u> , solid-film lubricant	VOC ROC		X	880			X	880		
fastener, <u>installation</u> , dry lubricative material	VOC		X	675						

Table I (1 of 2)
Identification of Performance Standards
Source Category: Aerospace Coatings (a)

			Rule/Measure/Date											
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Rul Aer Cor Ma	le 1124 rospace Assembly and	Ru Ae Op	CAPCD le 67.9 rospace Coating erations 0/97	Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96		Ma Op CT 9/1 <i>NE</i>	S. EPA Aerospace unufacturing and Rework erations (b) (C) implementation (798) and 9/1/99 (SHAP limits in italics polementation 9/15/98				
]	Performance Standard	l							
fastener, <u>lubricative</u> , solid-film lubricant	VOC ROC		X	250			X	250 mfg 1 SOURCE USING AFTERBURNER 12/97						
fastener, <u>lubricative</u> , dry lubricative material	VOC ROC		X	120		250 9/1/92		250 mfg						
fastener, <u>lubricative</u> , barrier coating	VOC ROC		X	420			X	420 barrier						
non-fastener lubricative, solid film lubricant	VOC ROC		X	880			X	880						
non-fastener lubricative, dry lubricative material	VOC ROC		X	675		880		880						
fastener, wet installation coating	VOC		X	250 fastener, <u>lubricative,</u> solid-film lubricant						850 (9-1-99)				
fire insulation coating, interior fire-resistant, civilian	VOC ROC	X 600		650				650		800 (9-1-99)				

Table I (1 of 2)
Identification of Performance Standards
Source Category: Aerospace Coatings (a)

		Rule/Measure/Date BAAOMD SCAOMD SDCAPCD VCAPCD U.S. EPA Aerospace											
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Ru Ae Co Ma	AQMD le 1124 rospace Assembly and mponent anufacturing Operations /13/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98								
]	Performance Standar	ď						
fire-resistant, military	VOC		X	970									
flight-test coating, missiles or single use target	VOC ROC		X	420			X	420		420 (9-1-99)			
flight-test coating, all other	VOC ROC			840			X	600 NO SOURCES 12/97		840 (9-1-99)			
fuel tank coating	VOC ROC	720	X	420		720	X	420		720 (9-1-99)			
fuel tank coating, epoxy	VOC ROC		X	680 420 (1/1/99)			X	620 NO SOURCES 12/97		780 (9-1-99) compatible substrate, epoxy or adhesive primer surfaces that contain fuel (not fuel tank coating)			
fuel tank coating, rubber	VOC			680 420 (1/1/02)									
high-temperature coating, >350°F	VOC ROC	720		850		850		850 NO SOURCES 12/97		850 (9-1-99)			

Table I (1 of 2)
Identification of Performance Standards
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		Rule/Measure/Date											
Regulated Component Pollutant		BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98							
				Performance Standard	1								
impact resistant	VOC ROC		x 420		x 420	780 (9-1-99) compatible substrate, epoxy							
insulation covering, applied to foam insulation	VOC		X topcoat			740 (9-1-99)							
lacquer	VOC					830 (9-1-99) Note: California pigmented lacquer may be considered topcoats (320 g/L) while non-pigmented lacquer may be considered clear topcoats (520 g/L)							
metallized epoxy coating	VOC		x 700			740 (9-1-99)							
mold release	VOC					780 (9-1-99)							
optical anti-reflective	VOC ROC		X 700		X 700	750 (9-1-99)							
part marking	VOC					850 (9-1-99)							

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						Rule/Measure/Date				
Regulated Component Pollutant		BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Ru Ae Co Ma	le 1124 crospace Assembly and	Rule 67.9 Aerospace Coating Operations 4/30/97		Ru Ae Co Op	CAPCD ale 74.13 brospace Assembly and component Mfg. cerations 10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98	
]	Performance Standard	l			
pretreatment wash primer, 0.5% acid	VOC ROC	X 420		780 pretreatment coating		780		780		780 (9-1-99)
primer, general	VOC ROC HAP	X 350	X	350	X	350	X	350 phosphate		350 (2.9 lb/gal) (9-1-98)
primer, flexible	VOC		X	350 primer general						640 (9-1-99)
primer, low solids corrosion resistant	VOC		X	650 see commercial exterior aerodynamic structural primer					X	650 (9-1-99)
primer, not resistant to phosphate esters	VOC ROC		X	350 primer general			X	350		
primer, resistant to phosphate esters	VOC ROC		X	350 primer general			X	350		
primer, compatible w/ rain resistant coating	VOC		X	850						

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			Rule/Measure/Date AAOMD SCAOMD SDCAPCD VCAPCD U.S. EPA Aerospace										
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Ru Ae Co Ma	CAQMD lle 1124 crospace Assembly and emponent anufacturing Operations /13/96	S. EPA Aerospace anufacturing and Rework perations (b) FG implementation 1/98 and 9/1/99 ESHAP limits in italics plementation 9/15/98								
				Performance Standard									
rain erosion-resistant	VOC ROC			800			X	420 NO SOURCES 12/97		850 (9-1-99)			
rain erosion resistant, fluoroelastomer	VOC												
rocket motor nozzle	VOC								X	660 (9-1-99)			
sealant	VOC ROC	x 600	X	600	X	600	X	600		600 (9-1-99) sealant, spray			
sealant, extrudable/rollable/brus hable	VOC		X	600 sealant					X	280 (9-1-99)			
	VOC ROC HAP	x 420	X	420	X	420	X	420		420 (3.5 lb/gal) (9-1-98)			
sealant bonding primer, used before silicone sealant	VOC	720	X	350 primer general									
silicone insulation material	VOC								X	850 (9-1-99)			
scale inhibitor	VOC ROC		X	880			X	880		880 (9-1-99)			

						Rule/Measure/Date				
Regulated Component	Pollutant	Reg. 8 Rule 29 Aerospace Vehicle Parts & Aerospace Assembly and		Aerospace Coating Operations 4/30/97		VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96		U.S. EPA Aerospace Manufacturing and Rework Operations ^(b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98		
]	Performance Standard	l			
screen print ink	VOC									840 (9-1-99) Note: California Graphic Art or Screen Printing Rules contain limits (300- 800 g/L)
space-vehicle, adhesive	VOC ROC		X	800	X	800	X	800		
space-vehicle coating, electrostatic discharge protective coating	VOC ROC		X	800	X	800	X	800		800 (9-1-99)
space-vehicle coating, thermocontrol	VOC ROC									
space-vehicle coating, other	VOC ROC		X	1000	X	1000	X	1000		
temporary protective coating	VOC ROC	X 250			X	250	X	250		320 (9-1-99)
thermal control	VOC				X	600				800 (9-1-99)
thermal expansion release	VOC									
topcoat, general	VOC ROC	X 320		420		420		420		420 (3.5 lb/gal)

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Regulated Component Pollutar		BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95 SCAQMD Rule 1124 Aerospace Assembly a Component Manufacturing Opera 12/13/96			Operations			CAPCD le 74.13 rospace Assembly and mponent Mfg. erations 0/96	Ма Ор СТ 9/1 <i>NE</i>	S. EPA Aerospace anufacturing and Rework perations (b) FG implementation 1/98 and 9/1/99 ESHAP limits in italics plementation 9/15/98
]	Performance Standard	l			
	НАР									(9-1-98)
topcoat, clear	VOC ROC		X	520			X	520		720 (9-1-99) clear coating
topcoat, epoxy polyamide	VOC ROC								X	660 (9-1-99)
topcoat, interior	VOC ROC	x 340		420 topcoat, general		420 topcoat, general		420 topcoat, general		
topcoat, acrylic lacquer for F-111	VOC									
wing	VOC ROC		X	750			X	420 NO SOURCES 12/97		850 (9-1-99)
wire, electronic	VOC ROC		X	420			X	420		
wire, anti-wicking	VOC ROC		X	420			X	420		

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	Pollutant					Rule/Measure/Date				
Regulated Component		Reg. 8 Rule 29 Aerospace Vehicle Parts &	Ru Ae Co Ma	CAQMD ale 1124 crospace Assembly and emponent anufacturing Operations /13/96	Rui Ae Op 4/3	le 67.9 rospace Coating erations 0/97	Ru Ae Co Op 9/1	le 74.13 rospace Assembly and imponent Mfg. perations 0/96	Ma Op CT 9/1 <i>NE</i>	S. EPA Aerospace unufacturing and Rework erations (b) G implementation (98 and 9/1/99) SHAP limits in italics plementation 9/15/98
					I	Performance Standard				
wire, pre-bonding etchant	VOC ROC		X	420			X	420		
phosphate ester resistant ink	VOC ROC		X	925			X	925		
all other or general coating	VOC		X	350		420				

			Rule/Measure/Date										
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98							
				Performance Standar	d								
primer & topcoats, inorganic HAP emissions	НАР					all sources: apply coatings in a booth or hangar in which air flow is directed downward onto or across the part or assembly being coated. (9- 1-98) existing (constructed before 6-6-94): - control, 2 stage dry particulate filter (9-1-98) for new source constructed between 6/6/94 and 10/29/96: - control, 2 stage dry particulate filter or -waterwash new source constructed between 6/6/94 and 10/29/96 with chromium or cadmium:							

						Rule/Measure/Date					
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Ru Ae Co Ma	ile 1124	Ru Ae Op	OCAPCD ale 67.9 Prospace Coating Perations 30/97	Ru Ae Co Op	lle 74.13 prospace Assembly and emponent Mfg. perations 10/96	Ма Ор СТ 9/1 <i>NE</i>	S. EPA Aerospace anufacturing and Rework perations (b) CG implementation (1/98 and 9/1/99 ESHAP limits in italics plementation 9/15/98	
			Performance Standard								
										-control , 3 stage dry particulate filter or -HEPA filter new source constructed after 10/29/96: -control, 3 stage dry particulate filter	
maskant, chemical processing	VOC	600 X does not exempt PCE	X	250 exempts PCE	X	250 exempts PCE <u>or</u> dip tank controls					
· · · · · · · · · · · · · · · · · · ·	VOC ROC HAP	600 does not exempt PCE (included above in chemical processing)		250 exempts PCE	X	160 type II others 250 <u>or</u> type I dip tank controls exempts PCE	X	250 does not exempt PCE		622 type I (9-1-98) 160 type II (9-1-98) does not exempt PCE	

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			Performance Standard									
maskant, photolithographic	VOC		X	850								
maskant, touch-up, liner-sealer	VOC		X	750								
maskant, bonding	VOC		X	250 maskant processing exempts PCE						1230 (9-1-99)		
maskant, critical use an line sealer	VOC		X	250 maskant processing exempts PCE						1020 (9-1-99)		
maskant, seal coat	VOC		X	250 maskant processing exempts PCE						1230 (9-1-99)		

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]	Performance Standard	l			
solvent use, surface preparation, clean up or mixing	VOC ROC HAP			- ≤ 200 g/l or - composite partial pressure ≤ 45 mm Hg or less at 20°C	X	- ≤ 200 g/l or - ≤ 45 mm Hg or less at 20°C or - initial boiling point ≤ 190°C or greater at 760 mm Hg total pressure - enclosed cleaning material which is opened only when accessing part or adding surface cleaning material	X	- ≤ 200 g/l <u>or</u> - ROC ≤ 25 mm Hg at 20°C	X	- aqueous cleaning solvent with $\geq 80\%$ water, a flashpoint $> 93^{\circ}C$ (200°F), and miscible with water, or - hydrocarbon cleaner with a max. $VP \leq 7$ mm Hg at 20°C (3.75 in H ₂ O at 68°F) and contain no HAP or ozone depleting compounds, or - composite partial pressure ≤ 45 mm Hg or less at 20°C (9-1-98)

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				Performance Standard	1							
,	VOC ROC HAP	minimize solvent evaporative loss: - closed containers for storage or disposal of cloth or paper - closed container when not in use 8/4/82	- solvent non- adsorbent, no-leaking container kept closed - recommended cloth and paper be stored the same Rule 1171	- can't use coating equipment to dispose of into the air	- closed containers	- place solvent-laden cloth, paper, or any other absorbent applicators used for cleaning in bags or other closed containers designed as to contain vapors upon completing their use keep closed when not in use (9-1-98)						

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, ,	VOC ROC HAP	shall not use organic compounds for the cleanup of spray equipment including paint lines unless equipment for collecting the cleaning compounds and minimizing their evaporation to the atm is used. 2/3/93		- ≤ 200 g/l or - ≤ 20 mm Hg or less at 20°C or - initial boiling point ≤ 190°C or greater at 760 mm Hg total pressure X - closed during cleaning - cleaned equipment or part is drained until dripping ceases - totally encloses component part during washing, rinsing and draining	-enclosed gun washer or low emission spray gun cleaner approved by APCO and -ROC composite partial pressure of organic solvent used is less than 45 mm Hg at 20°C	- enclosed system; - non-atomized cleaning; - disassemble and clean in a vat; - atomized into a container designed to capture emissions (9-1-98)

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				Rule/Measure/Date		
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Aerospace Assembly and		VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98
			T	Performance Standard	1 1	
stripper, organic emissions	VOC ROC HAP	- ≤ 400 g/l or - ≤ 10 mm Hg (0.19 psia) true VP at actual usage temperature	- ≤ 300 g/l or - ≤ 9.5 mm Hg (0.18 psia) composite partial pressure at 20°C	- ≤ 400 g/l or - ≤ 9.5 mm Hg (0.18 psia) composite partial pressure less at 20°C	- ≤ 300 g/l ROC or - ROC composite partial pressure ≤ 9.5 mm Hg or less at 20°C	Option 1 -non-HAP chemical strippers no control (9-1-98) Option 2 - nonchemical based equipment: operate & maintain the equipment according to the mfg. specification. (9-1-98) X Option 3 - organic HAP chemical stripper with add-on control: - existing sources constructed before 9-1-95 reduce the organic HAP emissions ≥ 81% (9- 1-98) - new sources constructed on or after 9- 1-95 reduce the organic HAP ≥ 95%
stripper,	НАР					X inorganic emission using

			Rule/Measure/Date							
Regulated Component	\mathcal{L}	Rule 1124 Aerospace Assembly and	Aerospace Coating Operations	Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations (b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98					
	Performance Standard									
inorganic HAP emissions					nonchemical based equipment: - all sources perform stripping in an enclosed area or use a closed-cycle stripping system (9-1-98) - existing sources constructed before 9-1-95 2-stage dry particulate filter; bag house; or waterwash system (9-1-98) - new sources constructed on or before 9-1-95 3- state particulate filter or bag house					

Table I (1 of 2)
Identification of Performance Standards
Source Category: Aerospace Coatings (a)

						Rule/Measure/Date					
Regulated Component	Pollutant	Reg. 8 Rule 29 Aerospace Vehicle Parts &		Rule 1124 Aerospace Assembly and				VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96		S. EPA Aerospace anufacturing and Rework perations (b) FG implementation 1/98 and 9/1/99 ESHAP limits in italics plementation 9/15/98	
				Performance Standard							
spray application equipment transfer equipment	VOC ROC HAP	- HVLP electrostatic spray, or detailing gun - alternative = see exemptions	X	- electrostatic, flow, roll, dip, HVLP, hand - alternative =		- electrostatic, flow, dip, hand, HVLP or equivalent - airless for maskants and temporary protective coating,	X	- electrostatic at min 60 kV, flow coat, dip coat, hand application methods, HVLP, or - alternative 65 %		- flow, dip, roll, brush, cotton-tipped swab, electrodeposition dip, HVLP, electrostatic spray (9-1-98) - alternative = electrostatic or HVLP 30 day demonstration	
control equipment, capture efficiency	VOC ROC HAP	control to an <u>equivalent</u> <u>level</u> by air pollution abatement device of at least 85 %	X	collection ≥ 90 %, by weight or output of the air pollution control device is < 50 PPM calculated as carbon with no dilution		combined capture and control 85 % by weight <u>and</u> approval by APCO		combined capture and control 85 % by weight and approval by APCO		add-on control system that reduces <i>HAP</i> and VOC emissions 81% overall efficiency (9-1-98)	
control equipment, control efficiency	VOC ROC HAP	control to an <u>equivalent</u> <u>level</u> by air pollution abatement device of at least 85 %	X	control device efficiency at least 95 % by weight (combined 85.5 %)		combined capture and control 85 % by weight <u>and</u> approval by APCO				add-on control system that reduces <i>HAP</i> and VOC emissions 81% overall efficiency (9-1-98)	

			Rule/Measure/Date											
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Rul Aei Coi Ma	AQMD le 1124 rospace Assembly and mponent nufacturing Operations 13/96	Ru Ae Op	rospace Coating erations 0/97	Ru Ae Co Op	Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96		S. EPA Aerospace unufacturing and Rework erations (b) (G) implementation (98) and 9/1/99 (SHAP limits in italics plementation 9/15/98				
			Performance Standard											
averaging or an alternative emission control plan (AECP)	VOC ROC HAP	Rule 100 AECP		Rule 108 AECP - daily RK - 24-hour average - 20 % reduction from baseline NO SOURCES		Rule 67.1 AECP - daily RK - daily compliance - 20 % reduction form baseline		no		- daily RK w/ monthly volume- weighted average of HAP and VOC - uncontrolled primer - uncontrolled topcoat - uncontrolled maskant (9-1-98)				
labeling or seller information requirements	VOC ROC	label or data sheet						label or data sheet						

Table I (1 of 2)
Identification of Performance Standards
Source Category: Aerospace Coatings (a)

				Rule/Measure/Date								
Regulated Component		BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Aerospace Assembly and	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations (b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98						
		Performance Standard										
1 6,	VOC ROC HAP	mfg. compliance statement via container or data sheet: - VOC g/L or #/gal - max. thinning ratio to maintain compliance w/ VOC limit - coating stripper, catalyst & reducer used - VOC content of coating & stripper	MSDS, mfg. data sheet, calculate, or test to determine VOC composition Exempts: solvent with water content 98% by weight or VOC composite pressure ≤ 0.1 mm Hg at 20° C or VOC with > 12 carbon atoms Rule 109	see below	label or data sheet ROC - content - ROC composite partial pressure of cleaning material - recommendated mixing with other ROC - ROC cleaning material ROC content	manufacturer data or test to determine HAP and VOC content						

Table I (1 of 2)
Identification of Performance Standards
Source Category: Aerospace Coatings (a)

				Rule/Measure/Date			
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Aerospace Assembly and	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations (b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98	
				Performance Standard	1		
1 0, 0	VOC ROC HAP	weekly: - coating & mix ratio as applied - quantity of each coating applied	daily records: - applicable district Rule 109 - list of permit units involved using adhesives, coatings, solvents - method of application & substrate type - amount & type in each permit unit or dispensing station - VOC content - amount (including exempt compounds) used and VOC content of each -oven temperature	coating list: - uses - allowable VOC content - type and/or category - mfg. ID - mix ratio - VOC content per volume - multi-stage maskants mfg. ID of the component monthly: - materials not applied by dip coating, amount of each coating, stripper, & thinner used - material added to coating dip tanks	mfg. specification sheet such as MSDS - type - ROC g/L - mix ratio - daily volume - method of application	- name & content mass or organic HAP or VOC per volume - data, calculation, test results monthly: - volume (gal) of each coating formulation (9-1-98)	

Table I (1 of 2)
Identification of Performance Standards
Source Category: Aerospace Coatings (a)

				Rule/Measure/Date		
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98
				Performance Standard	d	
1 0, 0	VOC ROC HAP	monthly: - type - amount	daily records: - applicable district Rule 109 - list of permit units involved using adhesives, coatings, solvents - method of application & substrate type - amount & type in each permit unit or dispensing station - VOC content - amount (including exempt compounds) used and VOC content of each - vapor pressure of solvents used as surface cleaners	coating list: - uses - allowable VOC content - type and/or category - mfg. ID - mix ratio - VOC content per volume of material, vapor pressure, or initial boiling point monthly: - inventory of solvents used for equipment cleaning and surface cleaning	mfg. specifications sheet - type - ROC g/L - daily volume of solvent & stripper - ROC composite partial pressure	- name of solvent - composition, data & calculation - annual volume based upon purchase records - composite vapor pressure (9-1-98)

			Rule/Measure/Date											
Regulated Component		BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Ru Ae Co Ma	CAQMD ale 1124 prospace Assembly and emponent anufacturing Operations /13/96	Ru Ae Op	erospace Coating perations 80/97	Ru Ae Co Op	Rule 74.13 Aerospace Assembly and Component Mfg. Operations //10/96		S. EPA Aerospace anufacturing and Rework perations (b) TG implementation (98 and 9/1/99) CSHAP limits in italics polementation 9/15/98				
			Performance Standard											
1 0, 0	VOC ROC HAP	monthly: - amount - amount added to tank- type stripper		same as solvent above		same as solvent above		same as solvent above		chemical: - name - monthly volume of each organic HAP stripper (9- 1-98) nonchemical: - name - type of nonchemical based equipment (9-1-98)				
recordkeeping, alternative allowed	VOC ROC HAP	yes		yes Rule 108 AECP		yes Rule 67.1 AECP		no		yes, only uncontrolled primer or topcoats or maskants				

Table I (1 of 2)
Identification of Performance Standards
Source Category: Aerospace Coatings (a)

					Rule/Measure/Date				
Regulated Component	Pollutant	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating Operations 12/29/95	Parts & SCAQMD Rule 1124 Rule 67.9 Rule 74.13 Aerospace Assembly and Component Operations 12/13/96 Performance Standard SDCAPCD Rule 67.9 Rule 74.13 Aerospace Coating Operations Component Moperations 9/10/96		le 74.13 rospace Assembly and mponent Mfg. erations 0/96	Ма Ор СТ 9/1 <i>NE</i>	S. EPA Aerospace anufacturing and Rework perations (b) CG implementation (98 and 9/1/99) CSHAP limits in italics polementation 9/15/98		
1 0,	VOC ROC HAP	daily: - coating usage - key system operating parameters		permit conditions	- same as coating, solvent & strippers above and O & M plan: - ID all key system operating parameters e.g., temperature, pressure, flow rate inspection schedules, anticipated ongoing maintenance, & proposed RK		daily records - key system operating and maintenance procedures which will demonstrate continuous operation & compliance - key system operating parameters		RK for carbon adsorber or other control

						Rule/Measure/Date							
Regulated Component Pollutant		Reg. 8 Rule 29		le 1124 rospace Assembly and	Rule 67.9 Aerospace Coating Operations 4/30/97		VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96		U.S. EPA Aerospace Manufacturing and Reworl Operations ^(b) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98				
			Performance Standard										
	VOC ROC HAP	5 years for Title V source; 2 years H&SC 42705		5 years for Title V source; 2 years H&SC 42705 Rule 109 2 years		5 years for Title V source; 2 years H&SC 42705 3 years Rule 67.9		5 years for Title V source; 2 years H&SC 42705 2 years Rule 74.13		5 years for Title V source			
methylene chloride reduction plan	exempt VOC	by 1/1/95											
qualification acceptance testing progress report	VOC			6 month progress report on coatings with future compliance dates - amount used - cost									
1	VOC ROC HAP							yes		yes			

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performance standard is grams of volatile organic compounds (VOC) per liter, less exempt compounds, less water, applied unless otherwise indicated

CTG final dated December 1997; released 3/27/98 63FR15006, effective date 9-1-98 for solvent cleaning; effective dated 9-1-99 for speciality coatings, application equipment & add-on control NESHAP/CTG final 9/15/95 60FR45948, amended 2/9/96 61FR04903, 12/17/96 61FR66227, 3/27/98 63FR15006, effective date 9/15/95; compliance for existing sources 9/1/98; compliance for new sources 6-6-94 or starup, (contains HAP & VOC emission limits)

]	Rule/Measure/Date										
Regulated Component	Pollutant	M Ru	ore stringent limits only AQMD ale 1118 1/28/96	IC. Ru 3/3	APCD	SB Ru	CAPCD	SJ Ru	ore stringent limits only UAPCD dle 423 /19/96	SN Ru 9/5	ore stringent limits only MAQMD ale 456 5/96 <i>draft revision</i>						
			Performance Standard														
VOC	VOC ROC		exempts PCE	X	ROC does not exempt PCE		Rule 102 does not exempt PCE	X	Rule 2 does not exempt PCE		Rule 101 exempts PCE						
adhesives and coating application, general solvent limit	VOC	X	reduce organic solvent or materials containing organic solvent by 85% Rule 442														
spray coating equipment, general	VOC HAP																
ablative coating	VOC			X	600					X	600						
ablative coating military	VOC																
adhesive, commercial interior	VOC																
adhesive, cyanoacrylate	VOC																
adhesive, elastomeric	VOC				850												
adhesive, fuel tank	VOC							X	620								
adhesive, promotor	VOC ROC								850		890						
adhesive, rocket motor bonding	VOC						_										

							Rule/Measure/Date				
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96		ICAPCD Rule 425		More stringent limits only SBCAPCD Rule 337 10/20/94		More stringent limits only SJUAPCD Rule 423 12/19/96		SM Ru 9/5	ore stringent limits only MAQMD lle 456 5/96 88 draft revision
							Performance Standard				
adhesive, rubber-based	VOC										
adhesive, non-structural	VOC ROC	X	250					X	250		
adhesive, structural epoxy	VOC			X	50 UNDEFINED SEE SD; UNDER REVISION						
adhesive, structural autoclavable	VOC ROC	X	50	X	50			X	50		
adhesive, structural non-autoclavable	VOC ROC		700	X	250				850		
adhesive, all other	VOC										
adhesive bonding primer	VOC ROC	X	250 NO SOURCES	X	250 CURRENTLY UNDER REVISION	X	250 NO SOURCES	X	250		
adhesive bonding primer, elastomeric	VOC										
adhesive bonding primer, epoxy-phenolic (metal to honeycomb) >350°F	VOC							X	800 250 (5/1/02)		

		Rule/Measure/Date											
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96	IC Ru 3/3	ore stringent limits only APCD ale 425 8/92 currently under vision	SB Ru	ore stringent limits only CAPCD le 337 /20/94	SJ Ru	ore stringent limits only UAPCD ale 423 /19/96	More stringent limits only SMAQMD Rule 456 9/5/96 5/98 draft revision				
]	Performance Standard							
adhesive bonding primer, long term metal to structural core bonding	VOC						X	250					
adhesive bonding primer, short term metal to structural core bonding	VOC							800 250 (5/1/02)					
adhesive bonding primer, decorative laminating	VOC						X	800					
adhesive bonding primer, military	VOC						X	700 250 (5/1/02)					
adhesive bonding primer, nitrile phenolic (metal to metal)	VOC						X	800 250 (5/1/02)					
adhesive bonding primer, all others	VOC		X	350 CURRENTLY UNDER REVISION									
antichafe	VOC						X	600					

			Rule/Measure/Date								
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96	ICA Rul 3/3	ore stringent limits only APCD le 425 /92 currently under ision	SB Ru 10/	ore stringent limits only CAPCD le 337 /20/94	SJI Ru	ore stringent limits only UAPCD le 423 /19/96	More stringent limits only SMAQMD Rule 456 9/5/96 5/98 draft revision X 600 available & in-use		
barrier a.k.a. fastener lubricative, barrier coating	VOC ROC					Terrormance Standard			Ī		
bearing	VOC										
caulking and smoothing compounds	VOC										
chemical agent-resistant (CARC)	VOC	500									
commercial exterior aerodynamic structural primer	VOC						X	650			
conformal	VOC ROC							750	X	600 available & in-use	
corrosion prevention compound	VOC										
cryogenic flexible primer	VOC										
cryoprotective coating	VOC										
electric or radiation effect coating	VOC ROC	800				800		800	X	600 CHECKING IF AVAILABLE & IN USE	

				Rule/Measure/Date		
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96	ICAPCD SBCAPCD SJUAPCD Rule 425 Rule 337 Rule 423 3/3/92 currently under revision 10/20/94 12/19/96		Rule 423 12/19/96	More stringent limits only SMAQMD Rule 456 9/5/96 5/98 draft revision
			T T	Performance Standard	T 1	T
elevated temperature skydrol resistant commercial primer	VOC					
extreme performance interior coating, barrier	VOC	x 420				
fastener, <u>installation</u> , solid-film lubricant	VOC ROC				X 880	
fastener, <u>installation</u> , dry lubricative material	VOC				X 675	
fastener, <u>lubricative</u> , solid-film lubricant	VOC ROC		X 250 CURRENTLY UNDER REVISION		800	
fastener, <u>lubricative</u> , dry lubricative material	VOC ROC				X 120	
fastener, <u>lubricative</u> , barrier coating	VOC ROC				X 420	
non-fastener lubricative, solid film lubricant	VOC ROC		x 880		x 880	x 880
non-fastener lubricative, dry lubricative material	VOC ROC				X 675	

]	Rule/Measure/Date					
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96	IC Ru 3/:	Ore stringent limits only IAPCD ale 425 3/92 currently under vision	SB Ru	ore stringent limits only CAPCD le 337 /20/94	SJI Ru	ore stringent limits only UAPCD lle 423 /19/96	SM Ru 9/5	ore stringent limits only MAQMD le 456 5/96 8 draft revision	
			Performance Standard								
fastener, wet installation coating	VOC									600 wet seal primer	
fire insulation coating, interior fire-resistant, civilian	VOC ROC	650			X	600		650			
fire-resistant, military	VOC	X 970									
flight-test coating, missiles or single use target	VOC ROC		X	420			X	420			
flight-test coating, all other	VOC ROC						X	600			
fuel tank coating	VOC ROC	720	X	420			X	420			
fuel tank coating, epoxy	VOC ROC						X	420			

]	Rule/Measure/Date				
Regulated Component			IC. Ru 3/3	ore stringent limits only APCD ale 425 8/92 currently under vision	SB Ru	ore stringent limits only CAPCD le 337 /20/94	SJ Ru	ore stringent limits only UAPCD ale 423 /19/96	SN Ru 9/:	ore stringent limits only MAQMD ale 456 5/96 <i>draft revision</i>
]	Performance Standard				
fuel tank coating, rubber	VOC									
high-temperature coating, >350°F	VOC ROC	720				720			X	420 available & in-use
impact resistant	VOC ROC						X	420		
insulation covering, applied to foam insulation	VOC									
lacquer	VOC									
metallized epoxy coating	VOC									
mold release	VOC								X	762 available & in-use proposed 1-22-98
optical anti-reflective	VOC ROC						X	700		
part marking	VOC								X	850 (12-31-98)
pretreatment wash primer, 0.5% acid	VOC ROC	780			X	400 NO SOURCES		780		

]	Rule/Measure/Date				
Regulated Component		More stringent limits only M AQMD Rule 1118 10/28/96	ICAPCD		More stringent limits only SBCAPCD Rule 337 10/20/94		More stringent limits only SJUAPCD Rule 423 12/19/96		SN Ru 9/5	ore stringent limits only MAQMD ale 456 5/96 <i>O8 draft revision</i>
]	Performance Standard				
primer	VOC ROC HAP	X 350			X	350	X	350		
primer, flexible	VOC									
primer, low solids corrosion resistant	VOC						X	650 commercial exterior aerodynamic structural primer		
primer, not resistant to phosphate esters	VOC ROC									
primer, resistant to phosphate esters	VOC ROC									
primer, compatible w/ rain resistant coating	VOC									
rain erosion-resistant	VOC ROC	X 600			X	600		800	X	600
rain erosion resistant, fluoroelastomer	VOC								X	800
rocket motor nozzle	VOC									

	Pollutant			Rule/Measure/Date		
Regulated Component		More stringent limits only M AQMD Rule 1118 10/28/96	More stringent limits only ICAPCD Rule 425 3/3/92 currently under revision	More stringent limits only SBCAPCD Rule 337 10/20/94	More stringent limits only SJUAPCD Rule 423 12/19/96	More stringent limits only SMAQMD Rule 456 9/5/96 5/98 draft revision
				Performance Standard		
sealant	VOC ROC	X 600		X 600	X 600	X 600
sealant, extrudable/rollable/brus hable	VOC					
self-priming topcoat, unicoat	VOC ROC HAP	x 420		x 420	X 420	x 420
sealant bonding primer, used before silicone sealant	VOC	720				
silicone insulation material	VOC					
scale inhibitor	VOC ROC				X 850 TYPO, WILL BE REVISED TO 880	
screen print ink	VOC					
space-vehicle, adhesive	VOC ROC				X 800	

]	Rule/Measure/Date				
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96	IC Ru 3/3	ore stringent limits only APCD ile 425 3/92 currently under vision	SB Ru 10	CAPCD dle 337 /20/94	SJ Ru 12	ore stringent limits only UAPCD lle 423 /19/96	SN Ru 9/5	ore stringent limits only MAQMD ile 456 5/96 08 draft revision
1:1	WOG BOG	000	Π	000	Т	Performance Standard	Π	000	Т	
space-vehicle coating, electrostatic discharge protective coating & other	VOC ROC	X 800	X	800	X	800	X	800		
space-vehicle coating, thermocontrol	VOC ROC		X	600 CURRENTLY UNDER REVISION						
space-vehicle coating, other	VOC ROC	X 1000			X	1000	X	1000	X	1000
temporary protective coating	VOC ROC	x 250	X	250	X	250	X	250	X	250
thermal control	VOC								X	600
thermal expansion release	VOC								X	762
topcoat, general	VOC ROC HAP	420								
topcoat, clear	VOC ROC						X	520		
topcoat, epoxy polyamide	VOC ROC									
topcoat, interior	VOC ROC	X 340			X	340				

]	Rule/Measure/Date				
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96	IC. Ru 3/3	ore stringent limits only APCD le 425 3/92 currently under vision	SB Ru	ore stringent limits only occAPCD le 337 /20/94	SJ Ru	ore stringent limits only UAPCD lle 423 /19/96	SN Ru 9/5	ore stringent limits only MAQMD ale 456 5/96 <i>draft revision</i>
]	Performance Standard				
topcoat, acrylic lacquer for F-111	VOC								X	780
wing	VOC ROC	X 750					X	750		
wire, electronic	VOC ROC						X	420		
wire, anti-wicking	VOC ROC						X	420		
wire, pre-bonding etchant	VOC ROC						X	420		
phosphate ester resistant ink	VOC ROC						X	925		
all other or general	VOC	X 350								
primer & topcoats, inorganic HAP emissions	НАР									
maskant, chemical processing	VOC	600 exempts PCE			···	600 does not exempt PCE				

]	Rule/Measure/Date				
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96		More stringent limits only ICAPCD SBCAPCD SUAPCD Rule 425 Rule 337 Rule 423 12/19/96 revision More stringent limits only SJUAPCD Rule 423 12/19/96				le 423	its only More stringent limits only SMAQMD Rule 456 9/5/96 5/98 draft revision	
					I	Performance Standard				
	VOC ROC HAP	622 type I 160 type II exempts PCE	X	250 does not exempt PCE CURRENTLY UNDER REVISION			X	250 does not exempt PCE		622 type I (12-31-98) 160 type II (12-31-98) exempts PCE
maskant, photolithographic	VOC									
maskant, touch-up, liner-sealer	VOC									
maskant, bonding	VOC									
maskant, critical use an line sealer	VOC									
maskant, seal coat	VOC									
solvent use, surface preparation, clean up or mixing	VOC ROC HAP	≤ 45 mm Hg at 20°C or ≤ 200 g/L		≤ 200 g/L ROC or 45 mm Hg at 20°C composite VP				≤ 200 g/L or 45 mm Hg (0.87 psia) at 68°F (20°C)		proposed 2/98 ≤ 200 g/L or ≤ 45 mm Hg at 20°C

				Rule/Measure/Date			
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96	More stringent limits only ICAPCD Rule 425 3/3/92 currently under revision	More stringent limits only SBCAPCD Rule 337 10/20/94	More stringent limits only SJUAPCD Rule 423 12/19/96	More stringent limits only SMAQMD Rule 456 9/5/96 5/98 draft revision	
solvent use, storage/disposal of coating or stripper containing organic solvent	VOC ROC HAP	keep closed except during extraction or introduction of material for mixing, use or storage	- proposed 10/97 closed containers - transported to a permitted waste disposal facility in sealed metal or plastic molded drums with snap-on or screw-type lids	closed container	closed containers	-closed containers for disposal -containers closed when not in use -disposed in a manner that the VOC are not emitted into the atm	
solvent use, cleaning spray equipment	VOC ROC HAP		- enclosed or sealed apparatus with 85 % of the ROC collected and properly disposed of such that they are not emitted to the atm - spray gun cleaning; enclosed gun cleaner		- enclosed system or enclosed gun washer	-except for electrostatic spray guns, shall not use VOC-containing materials for the cleaning of spray guns unless the spray gun is cleaned in an enclosed gun cleaner -proposed 2/98 spray gun nozzles may be soaked solvent-based materials for cleaning provided the container, ≤ 5 gallons, is keep closed except when accessing the container	

Table I (2 of 2)
Identification of Performance Standards
Source Category: Aerospace Coatings (a)

						Rule/Measure/Date				
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96	IC. Ru 3/3	ore stringent limits only APCD ale 425 B/92 currently under vision	SE Ru	ore stringent limits only BCAPCD ale 337 /20/94	SJ Ru	ore stringent limits only UAPCD ale 423 /19/96	SN Ru 9/:	ore stringent limits only MAQMD ale 456 5/96 <i>draft revision</i>
]	Performance Standard				
stripper, organic	VOC ROC HAP	< 400 g/L	X	≤ 200 g/L ROC		≤ 400 g/L ROC or 10 mm Hg at actual use temperature	X	≤ 300 g/L or ≤ 9.5 mm Hg (0.18 psia) at 68°F (20°C)		
stripper, inorganic HAP emissions	НАР									
spray application equipment transfer equipment	VOC ROC HAP	- electrostatic, flow, dip, HVLP, electrodeposition, hand, detailing or touch-up gun - alternative =		 electrostatic, flow, dip, hand, HVLP airless for maskants and temporary protective coating alternative ≥ 65 % 		- electrostatic, flow, dip, HVLP, electrodeposition, hand, detailing or touch-up guns - alternative 65 %	X	electrostatic, electrodeposition, HVLP, flow, roll, dip, brush	X	- hand, dip, flow, roll, electrodeposition, electrostatic, HVLP, LVLP - alternative =
control equipment, capture efficiency	VOC ROC HAP	≥ 85 % combined capture & control		proposed 10/97 ≥ 90 %	X	≥ 90 %	X	≥ 90 %	X	≥ 90 % proposed 2/98 85% overall system
control equipment, control efficiency	VOC ROC HAP	≥ 85 % combined capture & control		proposed 10/97 ≥ 95 %	X	≥ 95 %	X	≥ 95 %	X	≥ 95 % -proposed 2/98 85% overall system

			Rule/Measure/Date										
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96	More stringent limits only ICAPCD Rule 425 3/3/92 currently under revision	More stringent limits only SBCAPCD Rule 337 10/20/94	More stringent limits only SJUAPCD Rule 423 12/19/96	More stringent limits only SMAQMD Rule 456 9/5/96 5/98 draft revision							
				Performance Standard									
averaging or an alternative emission control plan (AECP)	VOC ROC HAP	- daily RK - monthly volume weighted average - within coating class - uncontrolled only - facility-wide or process line	no	no	no	Rule 107 AECP							
labeling or seller information requirements	VOC ROC	- date contents were mfg. or code - explanation if code is used - VOC content as applied -recommended thinning that does not exceed the VOC limits	proposed 10/97 - max ROC content after mixing or thinning as recommended - ROC g/L	- date or code content mfg - mfg recommendation thinning - max ROC g/L or lb/gal or VOC content		deleted labeling req. added seller information req.: - material type by name/code/mfg - mixing or thinning recommendation - max VOC content g/L coating - max VOC as applied strippers, solvents: - VOC content g/L - composite vapor pressure							

				Rule/Measure/Date					
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96	More stringent limits only ICAPCD Rule 425 3/3/92 currently under revision	More stringent limits only SBCAPCD Rule 337 10/20/94	More stringent limits only SJUAPCD Rule 423 12/19/96	More stringent limits only SMAQMD Rule 456 9/5/96 5/98 draft revision			
			Performance Standard						
recordkeeping, data	VOC ROC HAP	VOC content via label, product information sheet or MSDS material list: - mfg. ID - application method - type& specific use instructions - specific mixing ratio - max. VOC content as applied (including thinning solvents) purchase records: - type & volume monthly: - exclusive coating formulations daily: - volume - VOC content - resulting VOC emissions - summarize	- list of material - name & mfg ID - mixing instruction - ROC content - weight % water - weight % exempt compounds - solvent composition & density - solids content, less water as applied	- name & mfg ID - application method - material type & specific use - max ROC content - current mfg specification sheet, MSDS, or air quality data sheet - purchase records ID type or name and volume - monthly volume, ROC content, ROC emissions of each material used - annual summary	coating mfg data listed, on label, product data sheet, or MSDS - mfg name & type - mix ration by volume - VOC - VOC less water, less exempt - volume & method of application - vapor pressure of solvents	- list of material - material type name/code/mfg - VOC content - mixing ratio - id each material type exceeding the VOC limits of the rule - product information sheet provided by the seller			

Table I (2 of 2)
Identification of Performance Standards
Source Category: Aerospace Coatings (a)

			Rule/Measure/Date					
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96	More stringent limits only ICAPCD Rule 425 3/3/92 currently under revision	More stringent limits only SBCAPCD Rule 337 10/20/94 Performance Standard	More stringent limits only SJUAPCD Rule 423 12/19/96	More stringent limits only SMAQMD Rule 456 9/5/96 5/98 draft revision		
recordkeeping, usage coating	VOC ROC HAP	see data above	above data + - daily use - report annual of each coating amount with each application equip., method of application, amount of other solvent and exempt solvent used, ROC of each solvent, amount of ROC, solids content	see data above	data above + coatings have been specified for their intended application - adhesion promotor - antichafe coating - electric/radiation effect - fuel tank adhesive - high temperature - impact resistant - optical anti-reflective - rain erosion resistant wing	see data above		
recordkeeping, usage solvent	VOC ROC HAP	see data above	above data - daily use - report annual of each coating amount with each application equip., method of application, amount of other solvent and exempt solvent used, ROC of each solvent	see data above	see data above	- usage amounts monthly - usage amount for non- compliant material		

		Rule/Measure/Date								
Regulated Component	Pollutant	More stringent limits only M AQMD Rule 1118 10/28/96	IC. Ru 3/3	ore stringent limits only APCD ale 425 8/92 currently under vision	SB Ru	ore stringent limits only CAPCD le 337 /20/94	SJ Ru	ore stringent limits only UAPCD le 423 /19/96	SM Ru 9/5	ore stringent limits only IAQMD le 456 /96 l8 draft revision
]	Performance Standard				
recordkeeping, usage stripper	VOC ROC HAP	see data above		see solvent above		see data above		see data above		see usage solvent above
recordkeeping, alternative allowed	VOC ROC HAP	no		yes		no		no		yes Rule 107 AECP
1 0	VOC ROC HAP	daily key operating & maintenance procedures				data above + daily records of key operating and maintenance procedures		daily on key operating parameters & maintenance procedures		- daily usage amount - O & M plan
retention of records	VOC ROC HAP	5 years for Title V source; 2 years H&SC 42705 5 years		5 years for Title V source; 2 years H&SC 42705 2 years		5 years for Title V source; 2 years H&SC 42705 3 years		5 years for Title V source; 2 years H&SC 42705 2 years		5 years for Title V source; 2 years H&SC 42705 3 years
methylene chloride reduction plan	exempt VOC	>								
qualification acceptance testing progress report	VOC									

Regulated Component		Rule/Measure/Date					
	Pollutant	M AQMD	Rule 425	SBCAPCD Rule 337	More stringent limits only SJUAPCD Rule 423 12/19/96	More stringent limits only SMAQMD Rule 456 9/5/96 5/98 draft revision	
				Performance Standard			
I	VOC ROC HAP				yes		

performance standard is grams of volatile organic compounds (VOC) per liter, less exempt compounds, less water, applied unless otherwise indicated

Rule/Measure			Rule/Measure		
	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(a) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98
Exemption, general	Exempt from rule: -aerosol cans subject to Reg	Exempt from rule: - aerosol coating products	Exempt from VOC coating limits, application equip.,	Exempt from rule: - aerosol products	Too numerous to list all exemptions. Examples
	8 Rule 49 - electronic components 2/3/93 - assembled printed circuit boards 2/3/93 - paper-fabric-film coating which comply with Reg. 8 Rule 12 - stencil coatings subject to Reg 8 Rule 4 - solid film lubricant Reg 8 Rule 4 - test panels subject to Reg 8 Rule 4 - satellite coating subject Reg 8 Rule 4 - satellite coating subject Reg 8 Rule 4	Exempt from VOC limit, solvent use and stripping, solvent cleaning and storage, transfer & control equipment requirements: -laboratories with R& D, Q/C and testing for production-related operations - temporary making coatings Exempt from VOC limits: - translucent coating applied on clear or transparent substrates	stripping, cleaning, maskant dip, list of compliant coating used RK, volume of coating used RK, control equip. RK: - coatings applied using non-refillable aerosol spray containers - touch-up coating and stencil coatings - prepreg composite materials Exempt from rule: - surface cleaning or stripping of aerospace components in equipment	- coating or cleaning of metal parts, including but not limited to tooling operations that are subject to Rule 74.12 Surface Coating of Metal Parts and Products	that may be appropriate that are also included in the district rules. Exempt from rule: - aerosol products - touch-up of scratched surfaces or damaged paint or maskant - touch-up of trimmed edges - R&D, Q/C, laboratory testing activities - antique aerospace vehicles NESHAP Exemptions: General: 63.741
	- Reg 8, Rule 51 Adhesives and Sealants do not apply	- recoating of assembled aircraft at rework facilities if original coating formulation is used	subject to 67.6 (degreasers)		Cleaning: 63.744 Primer & Topcoat: 63.745 Stripping (depainting): 63.746

Rule/Measure			Rule/Measure		
	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(a) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98
	to aerospace; Dan Belik 2/10/98 - Reg 1, section 110.3 excludes Aircraft 11/3/93 Applies only to aircraft take off and landing per Dan Belik	Exempt from VOC limits & transfer efficiency: -incidental corrosion maintenance repair coating operations at military facilities			Chemical Milling Maskants: 63.747 CTG Exemptions: Appendix B. Model Rule
Exemption, low use facility	Exempt from weekly RK: -< 20 gallons per calendar year		Exempt from VOC coating limits, application equip., stripping, cleaning, maskant dip, list of compliant coating used RK, volume of coating used RK, control equip. RK: - coatings that are used in volumes of < 200 gallons per consecutive 12-month period of coatings provided a total of not more than 200 gallons per consecutive 12-month period of all such coatings including touch-up and stencil coatings,	Exempt from rule: - stationary sources that emit ≤ 200 pounds or ROC during any rolling period of 12 consecutive calendar months from coatings, thinners, adhesives, stripper, substrate surface preparation, application equipment cleaning, or any other solvent uses associated with coating operations (emissions from degreasing units subject to Rule 74.6.1, 74.6.2 or 74.6.3, and aerosol	

Rule/Measure		Rule/Measure							
	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(a) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98				
			containers, and prepreg composite - coatings used exclusively for purposes of research and development, provided that the total is ≤ 50 gallons per consecutive 12-month period of all such noncompliant coatings	products are not included) - aerosol products					

Rule/Measure			Rule/Measure		
	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(a) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98
Exemption, low use aerospace		Exempt from VOC limit, solvent use and stripping, solvent cleaning and storage, transfer & control equipment requirements: - < 3 gallons of VOC-containing coating and solvents from aerospace assemble and component	Exempt from VOC coating limits, application equip., stripping, cleaning, maskant dip, list of compliant coating used RK, volume of coating used RK, control equip. RK: - low usage < 50 gallons per consecutive 12-month		
		coating operation on each and every day of operation	period of aerospace coating used; does not include touch-up, non-refillable aerosol spray containers, and prepreg composite Exempt from application method: - ≤ 1 gallon per day of aerospace coating		

Rule/Measure			Rule/Measure	Rule/Measure						
	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(a) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98					
Exemption, individual coating formulation	Exempt from rule: - < 20 gallons per formulation provided that the total is < 200 gallons per year	Exempt from VOC limits: - < 20 gallons per year provided that the total is < 200 gallons per year - adhesives with separate formulation < 10 gallons per year		Exempt from coating limits: - formulations < 20 gallons per calendar year, or - adhesives with separate formulations < 10 gallons per year provided that the total volume of noncomplying coatings (excluding noncomplying adhesives) used does not exceed 200 gallons annually	Exempt from HAP and VOC limits: separate formulations in volumes < 50 gallons per year subject to a maximum exemption of 200 gallons total annually					

Rule/Measure			Rule/Measure		
	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(a) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98
Exemption, composition	Exempt from reg 8 rule 51: - adhesive and /or sealants products < 20 g/L of VOC	Exempt from RK: - materials that contain < 20 g/L of VOC	Exempt from list of coating used RK, volume of coating used RK, and control equipment RK: - adhesives, sealants and caulking and smoothing compounds, which have a VOC content of < 250 g/L of coating, less water and less exempt compounds Exempt from some maskant dip tank equipment requirements - \leq 20 gallons maskant used per consecutive 12-month period - maskant VOC content \leq 10% by weight	Exempt from transfer efficiency: - coatings with > 20 g/L ROC	Exempt primers, topcoats, chemical milling maskants, strippers, and cleaning solvents: - HAP and VOC noncarcinogens < 1.0% or HAP and VOC carcinogens < 0.1 % Exempt from detailed RK primers & topcoats: - HAP or VOC content ≤ 250 g/L

Rule/Measure		Rule/Measure						
	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(a) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98			
Exemption, adhesive & sealants	Exempt from rule: - adhesives that comply with Reg 8 Rule 4 - high-temperature-curing adhesive bonding primer cured >325°F, application is subject to Reg 8 Rule 4 -spray application equipment with limited access due to visual impairment which require 360° spray-gun nozzle extension, waterborn extreme performance interior top coating, adhesive bonding primers and pretreatment wash primers, textured finish coating Exempt from Reg 8 Rule		Exempt from list of coating used RK, volume of coating used RK, and control equipment RK: -adhesives and sealants which are applied outside application stations required to have a district permit - also see Exemption, content					

Rule/Measure			Rule/Measure		
	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(a) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98
	51: - adhesive and /or sealants products < 20 gallons per year				
Exemption, maskant			Exempt from some maskant dip tank equipment requirements - ≤ 20 gallons maskant used per consecutive 12-month period - maskant VOC content ≤ 10% by weight		
Exemption, surface cleaning		Exempt from VOC limit, solvent use and stripping, solvent cleaning and storage, transfer (application), & control requirements: - laboratories with R& D, Q/C and testing for production-related operations - temporary making coatings	Exempt from rule: - surface cleaning or or stripping of aerospace components in equipment subject to 67.6 (degreasers)	Exempt from surface cleaning: -cleaning of aerospace assembly and subassembly surfaces that are exposed to strong oxidizers or reducers such as nitrogen tetroxiode, liquid oxygen or hydrazine	Exempt from handwipe cleaning: - R&D, Q/C, laboratory testing activities - cleaning of aerospace assembly and subassembly surfaces that are exposed to strong oxidizers or reducers such as nitrogen tetroxiode, liquid oxygen or hydrazine

Rule/Measure			Rule/Measure		
	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(a) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98
		Exempt from solvent & striping limits: - surface cleaning of solar cells, fluid systems, avionic equipment, and laser optics			Exempt from flush cleaning: - semi-aqueous cleaners with \geq 60 % water
Exemption, stripper	Exempt from rule: - Tank-type stripper employing a sealing fluid at least four inches in depth which floats on the stripper surface and which consist of water or a fluid with a true vapor pressure of < 10 mm Hg (0.19 psia) at actual temperature	- see exemption surface cleaning	Exempt from rule: - surface cleaning or stripping of aerospace components in equipment subject to 67.6 (degreasers)		

Rule/Measure			Rule/Measure		
	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(a) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98
Exemption, transfer efficiency	- surface areas with limited access due to visual impairment which require 360° spray-gun nozzle extension - waterborne extreme performance interior topcoats - adhesive bonding primers and pretreatment wash primers - textured finish coat	Exempt from VOC limits & transfer efficiency: - incidental corrosion maintenance repair coating operations at military facilities Exempt from transfer efficiency: - touch-up and stencil coatings - marking coatings - airbrush operations	Exempt from application method: - air brushes with a capacity of 3 ounces or less - ≤ 1 gallon per day of aerospace coating		
Applicability, general	surface preparation and coating of aerospace components and cleanup of aerospace coating equipment aerospace component is the fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile or space vehicle	any operation associated with the manufacturing and assembling products for aircraft and space vehicles affected industries include commercial and military aircraft, satellite, space shuttle and rock manufacturers and their subcontractors	coating, masking, bonding, and paint stripping of aerospace components in operations where aerospace coating are used, to surface cleaning related to these aerospace coating operations, and to the cleanup of application equipment associated with these operations	manufacturing, assembling, coating, masking, bonding, paint stripping, and surface cleaning of aerospace components and the cleanup of equipment. aerospace component means any raw material, partial or completed fabricated part, assembly of	aerospace facilities that manufacture or rework of commercial, civil, or military aerospace vehicles or components CTG: that are in areas of moderate, serious, or severe nonattainment that have the potential to emit greater than or equal to

Rule/Measure			Rule/Measure		
	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(a) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98
	including aerospace prototype or test model coating, solvent evaporative loss minimization, stripper, maskant for chemical processing (includes chemical milling, anodizing, aging, bonding, plating, etching, and other chemical operations) spray application equipment, control equipment alternative	maskant applicators, aircraft refinishers, aircraft fastener manufacturers, aircraft operators, and aircraft maintenance and service facilities aerospace component is the raw material, partial or completed fabricated part, assembly or parts, or completed unit of any aircraft or space vehicle and includes integral equipment such as models, mock-ups, prototype, molds, jigs, tooling, hardware jackets, and test compounds.	aerospace component means any raw material, partial or completed fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile or space vehicle, including mockups, test panels and prototypes	parts, or completed unit of any aircraft, helicopter, missile, or space vehicle, including mockups and prototypes	25 tons per year of VOCs or in extreme areas that have the potential to emit greater than or equal to 10 tons per year VOCs NESHAP: that have the potential to emit 10 tons or more of any HAP or 25 tons or more of any combination of HAP aerospace vehicle or component means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to ariplanes, helicopters, missiles, rockets, and space vechicles.

Rule/Measure	Rule/Measure						
	BAAQMD Reg. 8 Rule 29 Aerospace Vehicle Parts & Products Coating 12/29/95	SCAQMD Rule 1124 Aerospace Assembly and Component Manufacturing Operations 12/13/96	SDCAPCD Rule 67.9 Aerospace Coating Operations 4/30/97	VCAPCD Rule 74.13 Aerospace Assembly and Component Mfg. Operations 9/10/96	U.S. EPA Aerospace Manufacturing and Rework Operations ^(a) CTG implementation 9/1/98 and 9/1/99 NESHAP limits in italics implementation 9/15/98		
Applicability	adhesive, coating, maskant,	adhesive, coating, maskant,	adhesive, coating, maskant,	adhesive, coating, maskant,	adhesive, coating,		
	cleaning & stripping	surface cleaning, equipment cleaning, stripping, fastners	surface cleaning, equipment cleaning, stripping, fastners	surface cleaning, equipment cleaning, stripping, fastners	maskant, surface cleaning, equipment cleaning, stripping, fastners		
Comments	VOC does not exempt PCE	VOC exempts PCE	VOC exempts PCE	ROC does not exempt PCE	NESHAP HAP does not exempt VOCs such as PCE, MeCl, TCA		

CTG final dated December 1997; released 3/27/98 63FR15006, effective date 9-1-98 for solvent cleaning; effective dated 9-1-99 for speciality coatings, application equipment & add-on control NESHAP/CTG final 9/15/95 60FR45948, amended 2/9/96 61FR04903, 12/17/96 61FR66227, 3/27/98 63FR15006, effective date 9/15/95; compliance for existing sources 9/1/98; compliance for new sources 6-6-94 or starup, (contains HAP & VOC emission limits)

Rule/Measure		Rule/Measure						
	MDAQMD Rule 1118 10/28/96	ICAPCD Rule 425 3/3/92	SBCAPCD Rule 337 10/20/94	SJUAPCD Rule 423 12/19/96	SMAQMD Rule 456 9/5/96 5/98 draft revision			
Exemption, general	Exempt from rule: - hand heal aerosol cans Exempt from coating limits: - recoating of assembled aircraft at rework facilities if the original coatings formulation is used - laboratories R&D, QC, testing of production-related operations - airbrush application for stenciling, lettering or other ID markings that cover less than 20 % of the vehicle, part or product's exterior surface	Exempt from rule except for RK: - touch-up - stencil - non-refillable hand held aerosol spray cans - prepreg composite materials	Exempt from rule: - non-refillable aerosol containers with capacities of ≤ 18 ounces	Exempt from rule: - jet engine or rocket engine flushing operations using any solvent other than trichloroethylene Exempt from requirements and administrative requirements including RK: - laboratories R & D, QC, testing for production-related operations (subject to operational records, data and calculations as determined by the APCO) Exempt from storage requirements: - hand held aerosol cans	Exempt from rule: - non-refillable aerosol containers			

Rule/Measure	Rule/Measure						
	MDAQMD Rule 1118 10/28/96	ICAPCD Rule 425 3/3/92	SBCAPCD Rule 337 10/20/94	SJUAPCD Rule 423 12/19/96	SMAQMD Rule 456 9/5/96 5/98 draft revision		
Exemption, low use facility					Exempt application equipment: - hand held spray container with non-refillable propellant canisters where total facility use is ≤ 10 gallons		

Rule/Measure			Rule/Measure		
	MDAQMD Rule 1118 10/28/96	ICAPCD Rule 425 3/3/92	SBCAPCD Rule 337 10/20/94	SJUAPCD Rule 423 12/19/96	SMAQMD Rule 456 9/5/96 5/98 draft revision
Exemption, low use		Exempt from coating,		Exempt from requirements:	Exempt from coating &
aerospace		storage, solvent, application, control limits: ≤ 3 gallons		≤ 4 gallons of VOC containing products per day	stripping limits: ≤ 200 gallons per calendar year
Exemption, individual coating formulation	Exempt from rule except for RK: < 50 gallons per year provided the total volume of non-complying coatings does not exceed 200 gallons annually	Exempt from coating limits (requires request & approval of APCO): < 20 gallons per year provided that the total volume does not exceed 50 gallons annually	Exempt from coating limits: < 20 gallons per year provided that the total volume of non-complying coatings does not exceed 200 gallons annually	Exempt from coating limits: < 21 gallon on any day or 20 gallons in any year provided the APCO is notified in writing that a substitute complying coating are not available	
Exemption, composition				Exempt from storage requirements: < 20 g/L VOC	
Exemption, adhesive & sealants				separate formulations < 0.5 gallons on any day or 10 gallons in any calendar year provided the APCO is notified in writing that a substitute complying coating are not available	Exempt from rule: paper, fabric, or film adhesives regulated by Rule 460

Rule/Measure			Rule/Measure		Rule/Measure					
	MDAQMD Rule 1118 10/28/96	ICAPCD Rule 425 3/3/92	SBCAPCD Rule 337 10/20/94	SJUAPCD Rule 423 12/19/96	SMAQMD Rule 456 9/5/96 5/98 draft revision					
Exemption, maskant										
Exemption, surface cleaning					- space vehicles & space vehicle components designed to travel beyond the earth's atm - cleaning & surface activation during adhesive bonding					

Rule/Measure			Rule/Measure		
	MDAQMD Rule 1118 10/28/96	ICAPCD Rule 425 3/3/92	SBCAPCD Rule 337 10/20/94	SJUAPCD Rule 423 12/19/96	SMAQMD Rule 456 9/5/96 5/98 draft revision
Exemption, stripper					
Exemption, transfer efficiency	- touch-up & repair		- touch-up & repair		- touch-up and repair - detail guns - template - stencil - stamp - hand lettering to add designs, letters, or numbers to an aerospace component - hand held spray container with non-refillable propellant canisters where total facility use is ≤ 10 gallons
Applicability, general	any person who manufactures or reworks aerospace vehicles by applying or specifying the use of surface coatings for aerospace vehicles parts and products	coating, masking, surface cleaning, and paint stripping of aerospace components and the cleanup of equipment associated with these operations	any person who manufactures, applies or specifies the use of surface coating for aircraft or aerospace vehicle parts and products	manufacturing, assembling, coating, masking, bonding, paint stripping, surface cleaning, service, and maintenance of aerospace components, and the cleanup of equipment associated with these operations	coating of aerospace components including coating removal (stripping), surface preparation and cleanup operations by any person

Rule/Measure	Rule/Measure						
	MDAQMD Rule 1118 10/28/96	ICAPCD Rule 425 3/3/92	SBCAPCD Rule 337 10/20/94	SJUAPCD Rule 423 12/19/96	SMAQMD Rule 456 9/5/96 5/98 draft revision		
			T				
Applicability	adhesives, coating, maskants, cleaning solvents, strippers	adhesives, coating, masking, surface cleaning, paint stripping	adhesive, coating, maskant, stripper	adhesive, coating, maskant, fastener, surface cleaning, stripper	adhesive, coating, maskant, surface cleaning, stripper		
Comments	exempts PCE	does not exempts PCE	Rule 102 does not exempt PCE	Rule 2 does not exempt PCE (ROC)	Rule 101 exempts PCE		